ABSTRACT OF THE DISCLOSURE

A coolant liner for a carbonaceous fuel (coal or petcoke) gasification vessel including a ceramic composite panel and a method of cooling a vessel. The panel includes at least two layers of woven yarns of fibrous material and walls extending between the layers. Accordingly, the layers and the walls define coolant channels that extend in a warp direction. Moreover, one of the layers may be less than about 0.08 inches thick. Materials used to create the composite panel may include alumina, chromia, silicon carbide, and carbon. Additionally, the liners may be shaped in an arc or have coolant channels which vary in diameter in the warp direction. Additionally, the liner may abut a structural closeout of the vessel. The coolant liner provides a significantly more durable component than previously employed liners and is especially well suited to demanding service environments.